

STUDIES IN THE EUPATORIEAE (ASTERACEAE). XXXVIII.

A NEW GENUS, PETERAVENIA.

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Five Eupatorian species from Mexico and Central America represent a distinctive previously unnamed genus having deciduous pappus setae, discolored phyllaries, and cordate leaves. The pappus setae alone are sufficient to distinguish the genus, being very narrow at the base and noncontiguous but enlarged at the tip. The genus is Critonioid in its smooth corolla lobes and its usually simple style base. One feature that is more reminiscent of Ageratina, however, is the usually high placement of the embryo in the achene.

We take great pleasure in naming this new genus in honor of our good friend and colleague, Dr. Peter H. Raven of Stanford University. Although the Asteraceae is not his main speciality, his contributions to our knowledge of the family are very significant.

Peteravenia R.M.King & H.Robinson, genus novum Asteracearum. Plantae grossae herbaceae vel frutescentes erectae usque ad 4 m. altae, paucе ramosae. Folia opposita longe petiolata, laminis cordatis plerumque serratis. Inflorescentiae laxе paniculatae. Involucri squamae ca. 25 plerumque oblongae inaequilongae 3-4-seriatae; receptacula valde convexa glabra. Flores 18-35 in capitulo; corollae anguste infundibulares 5-lobatae, extus glabrae, cellulis oblongis vel linearibus, parietibus plerumque sinuosis, lobis aequilateraliter triangularibus vel longioribus ad apicem induratis minute scabris, stomatibus nullis; filamenta antherarum in parte superiore angustata, cellulis rectangularibus vel inferne quadratis, parietibus annulate vel intricate ornatis, cellulis exothecialibus plerumque subquadratis, appendicibus antherarum late triangularibus obtusis vel truncatis; styli inferne glabri non vel leniter nodulosi, appendicibus linearibus vel anguste clavatis minute papillosis vel sublaevibus. Achaenia prismatica 4-5-costata setifera, inferne plerumque angustiora; carpodia aliquantum distincta, cellulis quadratis parietibus tenuibus; pappus setiformis uniseriatus, setis ca. 30 scabris facile deciduis, inferne angustis non vel vix contiguis, superne anguste clavatis, cellulis apicibus acutis. Embryones superne dispositi.

Plants erect, few branched, coarse herbs or shrubs to 4 meters tall. Leaves opposite, distinctly long petioled, blades cordate, usually serrate. Inflorescence a rather loose panicle. Involucre of ca. 25 unequal, oblong phyllaries; in 3-4 series; receptacle highly convex, glabrous, 18-35 flowers per head; corollas narrowly funnelform, 5-lobed, outer surface of corolla glabrous, lobes equilaterally triangular or longer than wide, usually with a cap of short papillae on the tips of the lobes; inner surface glabrous; stomates absent; vascular traces to tips of lobes, anther collar usually slender, composed of rather thin walled rectangular cells with beaded thickenings. Anther appendages with large cells; style base without enlarged node, glabrous. Styler appendage only slightly enlarged, mamilllose, lower part of style branches short papillose. Achenes prismatic, 4-5 ribbed, narrowed below, setiferous, carpopodia distinct, asymmetrical, composed of one to several tiers of thin walled cells, embryo high in the achene, pappus of ca. 30 ? rather deciduous scabrous setae which are narrow below and broadened at tips, apical cells acute, chromosome number determined as $N = 10$ (Raven, unpublished).

Type species: Eupatorium schultzii Schnittspahn

Our studies indicate that the genus contains the following five species.

Peteravenia grisea (Coul.) R.M.King & H.Robinson, comb. nov.
Eupatorium griseum Coul., Bot. Gaz. 20:43. 1895. Guatemala, Honduras, Nicaragua.

Peteravenia malvaefolia (A.P.Decandolle) R.M.King & H.Robinson, comb. nov. Eupatorium malvaefolium A.P.Decandolle, Prodr. 5: 160. 1836. Guatemala, Mexico.

Peteravenia phoenicolepis (B.L.Robinson) R.M.King & H.Robinson, comb. nov. Eupatorium phoenicolepis B.L.Robinson, Proc. Amer. Acad. 35: 338. 1900. El Salvador, Guatemala, Mexico.

Peteravenia rhodochlamydea (A.Gray) R.M.King & H.Robinson, comb. nov. Eupatorium rhodochlamydeum A.Gray, Proc. Am. Acad. 15: 26. 1880. Mexico.

Peteravenia schultzii (Schnittspahn) R.M.King & H.Robinson, comb. nov. Eupatorium schultzii Schnittspahn, Zeitschr. Gartenb. Darmst. 6. 1857. Costa Rica, El Salvador, Guatemala, Honduras, Mexico.